

CLAIMS

What we claim is:

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1. A method of biometrically identifying a customer of a retail establishment to facilitate or enhance the customer's shopping experience, comprising:

10 obtaining a biometric profile representative of a biometric characteristic of a customer using a biometric sensing device;

15 retrieving shopping history related information for said customer based on said biometric profile;

20 providing the customer with one or more items that facilitate or enhance the customer's shopping experience, the one or items based on the shopping history related information.

25 2. The method of claim 1, wherein said one or more items include one or more manufacturer or retail establishment coupons.

3. The method of claim 2, wherein said coupons are physical, printed coupons.

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4. The method of claim 2, wherein said coupons are electronic coupons.

25 5. The method of claim 1, wherein said one or more items include a personal shopping list.

6. The method of claim 5, wherein said personal shopping list is a physical, printed shopping list.

7. The method of claim 5, wherein said personal shopping list is an electronic shopping list.

8. The method of claim 5, wherein physical locations of items of said personal shopping list in the retail establishment are shown in a retail establishment map.

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9. The method of claim 5, wherein said personal shopping list includes location information indicating where in a retail establishment items of said personal shopping list are located.

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10. The method of claim 5, further including the step of using said personal shopping list and/or said shopping history related information to provide customer relationship management.

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11. The method of claim 10, wherein customer relationship management includes pulling low-touch items of said personal shopping list from shelves of the retail establishment for a customer.

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12. The method of claim 1, wherein said biometric sensing device includes a fingerprint recognition device, and the step of obtaining includes obtaining a biometric profile representative of a customer's fingerprint.

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13. The method of claim 1, wherein said biometric sensing device includes a hand geometry recognition device, and the step

of obtaining includes obtaining a biometric profile representative of a customer's hand geometry.

14. The method of claim 1, wherein said biometric sensing  
5 device includes a handprint recognition device, and the step of  
obtaining includes obtaining a biometric profile representative  
of a customer's handprint.

10 15. The method of claim 1, wherein said biometric sensing  
device includes an iris recognition device, and the step of  
obtaining includes obtaining a biometric profile representative  
of a customer's iris.

15 20. The method of claim 1, wherein said biometric sensing  
device includes a face recognition device, and the step of  
obtaining includes obtaining a biometric profile representative  
of a customer's facial appearance.

20 25. The method of claim 1, wherein said biometric sensing  
device includes a voice or speech recognition device, and the  
step of obtaining includes obtaining a biometric profile  
representative of a customer's voice or speech.

25 30. The method of claim 1, wherein said biometric sensing  
device includes a handwriting recognition device, and the step  
of obtaining includes obtaining a biometric profile  
representative of a customer's handwriting.

30 35. The method of claim 1, further including the step of  
obtaining a pin code of the customer; and the retrieving step

includes retrieving shopping history related information for said customer based on said pin code and said biometric profile.

20. The method of claim 1, wherein the retrieving step  
5 includes retrieving payment information of the customer, the method further including the step of storing the payment information for the customer locally so that it is readily available for payment processing during checkout from the retail establishment.

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21. The method of claim 20, further including the step of retrieving the locally stored payment information of the customer for payment processing based at least in part upon a biometric profile of the customer obtained by a biometric sensing device at checkout.

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22. The method of claim 21, wherein the biometric profile is obtained at a self-checkout system.

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23. The method of claim 1, wherein the retrieving step includes retrieving personal information of the customer, the method further including the step of storing the personal information for the customer locally so that it is readily available for processing during checkout from the retail establishment.

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24. The method of claim 23, further including the step of retrieving the locally stored personal information of the customer for processing age-restricted purchases or validating customer identity based at least in part upon a biometric

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profile of the customer obtained by a biometric sensing device at checkout.

25. The method of claim 24, wherein the biometric profile  
5 is obtained at a self-checkout system.

26. A system for biometrically identifying a customer of a retail establishment to facilitate or enhance the customer's shopping experience, comprising:

10 a biometric sensing device adapted to convert a biometric characteristic of a customer of the retail establishment into a representative biometric profile; and

15 a computer coupled to said biometric sensing device and adapted to retrieve shopping history related information for said customer based on said biometric profile and provide the customer with one or more items that facilitate or enhance the customer's shopping experience, the one or items based on the shopping history related information.

20 27. The system of claim 26, further including an output device adapted to output said one or more items, said one or more items including one or more manufacturer or retail establishment coupons.

25 28. The system of claim 27, wherein said output device is a coupon printer and said coupons are physical coupons.

29. The system of claim 27, wherein said output device is a wireless transmitter and said coupons are electronic coupons.

30. The system of claim 26, further including an output device adapted to output said one or more items, said one or more items including a personal shopping list.

5 31. The system of claim 30, wherein said output device is a printer and said personal shopping list is a physical, printed shopping list.

10 32. The system of claim 30, wherein said output device is an infrared transmitter and said personal shopping list is an electronic shopping list.

15 33. The system of claim 26, wherein said output device is adapted to output a retail establishment map showing physical locations of items of a personal shopping list in the retail establishment.

20 34. The system of claim 26, wherein said output device is adapted to output a personal shopping list including location information indicating where in a retail establishment items of a personal shopping list are located.

25 35. The system of claim 26, wherein said biometric sensing device includes a fingerprint recognition device.

36. The system of claim 26, wherein said biometric sensing device includes a hand geometry recognition device.

30 37. The system of claim 26, wherein said biometric sensing device includes a handprint recognition device.

38. The system of claim 26, wherein said biometric sensing device includes an iris recognition device.

5 39. The system of claim 26, wherein said biometric sensing device includes a face recognition device.

40. The system of claim 26, wherein said biometric sensing device includes a voice or speech recognition device.

10 41. The system of claim 26, wherein said biometric sensing device includes a handwriting recognition device.

15 42. The system of claim 26, further including a pin code entering device for obtaining a pin code of the customer, and said computer adapted to retrieve shopping history related information for said customer based on said pin code and said biometric profile.

20 43. The system of claim 26, wherein said computer is adapted to retrieve and store payment information of the customer so that it is readily available for payment processing during checkout from the retail establishment.

25 44. The system of claim 26, wherein the computer is adapted to deliver the stored payment information of the customer for payment processing based at least in part upon a biometric profile of the customer obtained by a biometric sensing device at checkout.

45. The system of claim 26, wherein said computer is adapted to retrieve and store personal information of the customer so that it is readily available for processing age-restricted purchases or validating customer identity during  
5 checkout from the retail establishment.

46. The system of claim 26, wherein the computer is adapted to use a personal shopping list obtained from said customer and/or said shopping history related information to  
10 provide customer relationship management.

47. The system of claim 26, wherein the computer is adapted to use a personal shopping list obtained from said customer for pulling low-touch items of said personal shopping list from shelves of the retail establishment for a customer.  
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48. The system of claim 26, wherein said computer comprises a computer at a customer identification station, a biometric registration station, an attendant station, a backroom  
20 server center, or a self-checkout station.

49. A method of registering a biometric characteristic and identifying a customer, comprising:

25 registering a biometric characteristic of a customer comprising the steps of:

obtaining a biometric profile representative of a biometric characteristic of a customer using a biometric sensing device;

obtaining payment information from said customer;

associating and storing said biometric profile and payment information for said customer; biometrically identifying the customer to facilitate or enhance the customer's shopping experience comprising the steps 5 of:

obtaining a biometric profile representative of a biometric characteristic of a customer using a biometric sensing device;

10 retrieving shopping history related information for said customer based on said biometric profile;

15 providing the customer with one or more coupons, a shopping list that may indicate the physical location of shopping list items in the retail establishment, and/or a map indicating the physical location of shopping list items in the retail establishment to facilitate or enhance the customer's shopping experience.

20 50. The method of claim 49, wherein registering a biometric characteristic of a customer occurs at a biometric registration station or a customer service center.

25 51. The method of claim 49, wherein biometrically identifying the customer occurs at a customer identification station.

52. The method of claim 49, wherein registering a biometric characteristic of a customer and biometrically identifying the customer occurs at the same station.

53. A method of registering a biometric characteristic, identifying a customer, and checkout at a retail establishment, comprising:

5 registering a biometric characteristic of a customer comprising the steps of:

10 obtaining a biometric profile representative of a biometric characteristic of a customer using a biometric sensing device;

15 obtaining payment information from said customer;

associating and storing said biometric profile and payment information for said customer;

20 biometrically identifying the customer to facilitate or enhance the customer's shopping experience comprising the steps of:

25 obtaining a biometric profile representative of a biometric characteristic of a customer using a biometric sensing device;

retrieving shopping history related information for said customer based on said biometric profile;

30 providing the customer with one or more coupons, a shopping list that may indicate the physical location of shopping list items in the retail establishment, and/or a map indicating the physical location of shopping list items in the retail establishment to facilitate or enhance the customer's shopping experience;

biometrically checking out of the retail establishment comprising the steps of:

35 obtaining a biometric profile representative of a biometric characteristic of the customer using a biometric sensing device;

retrieving payment information for said customer based on said biometric profile; and  
paying for one or more items using said payment information.

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54. The method of claim 53, wherein registering a biometric characteristic of a customer occurs at a biometric registration station or a customer service center.

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55. The method of claim 53, wherein biometrically identifying the customer occurs at a customer identification station.

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56. The method of claim 53, wherein registering a biometric characteristic of a customer and biometrically identifying the customer occurs at the same station.

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57. The method of claim 53, wherein biometrically checking out of the retail establishment occurs at a self-checkout system.